- 2 -

## In the Claims:

25. (Currently Amended) A cathode for an electrochemical cell, the cathode comprising a cathode active material characterized as having been prepared by heating a reaction mixture of a silver-containing compound mixed with a vanadium-containing compound in a reduced oxygen an atmosphere containing oxygen, but at a reduced concentration with respect to an ambient atmosphere to provide the cathode active material comprising  $\gamma$ -phase silver vanadium oxide (Ag<sub>0.8</sub>V<sub>2</sub>O<sub>5.4</sub>),  $\epsilon$ -phase silver vanadium oxide (Ag<sub>2</sub>V<sub>4</sub>O<sub>11</sub>) and elemental silver.

## 26. (Canceled)

- 27. (Original) The cathode of claim 25 wherein the silver-containing compound is selected from the group consisting of silver nitrate, silver lactate, silver triflate, silver pentafluoropropionate, silver laurate, silver myristate, silver palmitate, silver stearate, silver vanadate, silver oxide, silver carbonate, and mixtures thereof.
- 28. (Original) The cathode of claim 25 wherein the vanadium-containing compound is selected from the group consisting of  $NH_4VO_3$ ,  $AgVO_2$ ,  $V_2O_5$ ,  $V_2O_4$ ,  $V_6O_{13}$ ,  $V_2O_3$ , and mixtures thereof.

- 3 -

- 29. (Original) The cathode of claim 25 wherein the reduced oxygen atmosphere has an oxygen content of about 1% to about 10%.
- 30. (Currently Amended) The cathode of claim 25 wherein the cathode active material comprises about 30% to about 70%  $\gamma$ -phase silver vanadium oxide SVO, about 30% to about 70%  $\epsilon$ -phase silver vanadium oxide SVO and about 1% to about 15% silver metal.
- 31. (Original) The cathode of claim 25 wherein the reaction mixture is heated to at least one reaction temperature in a range from about 200°C to about 550°C.
- 32. (Original) The cathode of claim 25 wherein the reaction mixture is heated to at least one reaction temperature for about 30 minutes to about 30 hours.
- 33. (Original) The cathode of claim 25 further comprising a binder and a conductive material.
- 34. (Currently Amended) A cathode for an electrochemical cell, the cathode comprising an electrode active material characterized as having been prepared by heating a reaction mixture of a silver-containing compound mixed with a vanadium-containing compound in a reduced oxygen an atmosphere containing oxygen, but at a reduced concentration with respect to an ambient atmosphere to provide the electrode active material comprising γ-phase

- 4 -

silver vanadium oxide (Ag<sub>0.8</sub>V<sub>2</sub>O<sub>5.4</sub>),  $\epsilon$ -phase silver vanadium oxide (Ag<sub>2</sub>V<sub>4</sub>O<sub>11</sub>) and elemental silver.

## 35. (Canceled)

- 36. (Original) The cathode of claim 34 wherein the silver-containing compound is selected from the group consisting of silver nitrate, silver lactate, silver triflate, silver pentafluoropropionate, silver laurate, silver myristate, silver palmitate, silver stearate, silver vanadate, silver oxide, silver carbonate, and mixtures thereof.
- 37. (Original) The cathode of claim 34 wherein the vanadium-containing compound is selected from the group consisting of  $NH_4VO_3$ ,  $AgVO_2$ ,  $V_2O_5$ ,  $V_2O_4$ ,  $V_6O_{13}$ ,  $V_2O_3$ , and mixtures thereof.
- 38. (Original) The cathode of claim 34 wherein the reduced oxygen atmosphere has an oxygen content of about 1% to about 10%.
- 39. (Currently Amended) The cathode of claim 34 wherein the cathode active material comprises about 30% to about 70%  $\gamma$ -phase silver vanadium oxide SVO, about 30% to about 70%  $\epsilon$ -phase silver vanadium oxide SVO and about 1% to about 15% silver metal.

**-** 5 -

- 40. (Currently Amended) A nonaqueous electrochemical cell, comprising:
  - a) an anode;
  - b) a cathode comprising a cathode active material characterized as having been prepared by heating a reaction mixture of a silver-containing compound mixed with a vanadium-containing compound in a reduced oxygen an atmosphere containing oxygen, but at a reduced concentration with respect to an ambient atmosphere to provide the electrode active material comprising γ-phase silver vanadium oxide (Ag<sub>0.8</sub>V<sub>2</sub>O<sub>5.4</sub>), ε-phase silver vanadium oxide (Ag<sub>2</sub>V<sub>4</sub>O<sub>11</sub>) and elemental silver;
  - c) a separator material electrically insulating the anode from the cathode; and
  - d) a nonaqueous electrolyte activating the anode and the cathode.
- 41. (Original) The electrochemical cell of claim 40 wherein the anode is comprised of lithium.
- 42. (Canceled)

- 6 -

- The electrochemical cell of claim 40 43. (Original) wherein the silver-containing compound is selected from the group consisting of silver nitrate, silver lactate, silver triflate, silver pentafluoropropionate, silver laurate, silver myristate, silver palmitate, silver stearate, silver vanadate, silver oxide, silver carbonate, and mixtures thereof.
- 44. (Original) The electrochemical cell of claim 40 wherein the vanadium-containing compound is selected from the group consisting of  $NH_4VO_3$ ,  $AgVO_2$ ,  $V_2O_5$ ,  $V_2O_4$ ,  $V_6O_{13}$ ,  $V_2O_3$ , and mixtures thereof.
  - The electrochemical cell of claim 40 (Original) wherein the reduced oxygen atmosphere is characterized as having had an oxygen content of about 1% to about 10%.
  - (Currently Amended) The electrochemical cell of claim 46. 40 wherein the cathode active material comprises about 30% to about 70% γ-phase silver vanadium oxide SVO, about 30% to about 70%  $\epsilon$ -phase silver vanadium oxide SVO and about 1% to about 15% silver metal.
  - The electrochemical cell of claim 40 47. (Original) wherein the reaction mixture is characterized as having been heated to at least one reaction temperature in a range from about 200°C. to about 550°C.

- 7 -

- 48. (Original) The electrochemical cell of claim 40 wherein the reaction mixture is characterized as having been heated to at least one reaction temperature for about 30 minutes to about 30 hours.
- 49. (New) The cathode of claim 25 wherein the reduced oxygen atmosphere contains carbon dioxide.
- 50. (New) The cathode of claim 34 wherein the reduced oxygen atmosphere contains carbon dioxide.
- 51. (New) The electrochemical cell of claim 40 wherein the reduced oxygen atmosphere contains carbon dioxide.